

IN THE CLAIMS:

1. (canceled)

2. (previously presented) The process according to claim 15, wherein said hydrocarbon stream is selected from the group consisting of a hydrocarbon gas (NG) stream, a liquified natural gas (LNG) stream, a stream of natural gas liquids (NGL) and a liquid hydrocarbon stream.

3. (currently amended) The process according to claim 15, wherein said sulfur compounds are selected from the group consisting of present in the hydrocarbon stream carbon disulfide, carbonyl sulfide, mercaptans, thioethers, sulfides, disulfides, and mixtures thereof.

4. (canceled)

5. (canceled)

6. (previously presented) The process according to claim 15, wherein the cyanuric acid and its salts of the aqueous reactive extractive agent (b), (c), (e) or (f) are selected from the group consisting of syn-triazine-2,4,6-triol, 1,3,5-triazine-2,4,6 (1H, 3H, 5H)-trione, syn-triazinetriol, 2,4,6-trihydroxy-1,3,5-triazine, trihydroxycyanidine, tricyanic acid, monochloroisocyanurate, dichloroisocyanurate, trichloroisocyanurate, sodium trichloroisocyanuric acid, and mixtures thereof.

7. (previously presented) The process according to claim 15, which includes contacting the hydrocarbon stream in the presence of a catalyst selected from the group consisting of transition metal oxidation catalysts and supported catalysts.

8. (original) The process according to claim 7, wherein the transition metal catalysts are iron or nickel salts.

9. (original) The process according to claim 8, wherein the iron or nickel salts are nickelous sulfate or ferrous sulfate.

10. (previously presented) The process according to claim 15, wherein the hydrocarbon stream is contacted in a continuous process by dispersing the hydrocarbon stream in the aqueous solution of the reactive extractive agent.

11. (original) The process according to claim 10, which includes contacting the hydrocarbon stream in the presence of a catalyst selected from the group consisting of transition metal oxidation catalysts and supported catalysts.

12. (previously presented) The process according to claim 15, wherein the hydrocarbon stream is stirred and/or agitated in a contactor containing an aqueous solution of the reactive extractive agent.

13. (original) The process according to claim 12, which includes contacting the hydrocarbon stream in the presence of a catalyst selected from the group consisting of transition metal oxidation catalysts and supported catalysts.

14. (previously presented) The process according to claim 15, wherein the sulfur content in the hydrocarbon stream is reduced to 5 ppm or less.

15. (currently amended) A process for the removal of sulfur compounds from a hydrocarbon stream which comprises:

contacting the hydrocarbon stream containing sulfur compounds with an aqueous reactive

extractive agent selected from the group consisting of

- 5 a. one or more hypochlorites;
- b. cyanuric acid and/or salts of cyanuric acid;
- c. one or more hypochlorites in combination with cyanuric acid and/or salts of cyanuric acid;
- d. one or more hypochlorites in combination with alkali metal and/or alkaline
- 10 earth metal hydroxides;
- e. cyanuric acid and/or salts of cyanuric acid in combination with alkali metal and/or alkaline earth metal hydroxides; and
- f. one or more hypochlorites in combination with cyanuric acid and/or salts of cyanuric acid, and alkali metal and/or alkaline earth metal hydroxides;

15 the hydrocarbon stream being contacted under conditions and for a period of time which is sufficient for the reaction between the reactive extractive agent and the sulfur compounds to form ionic reaction products which are soluble in water, said ionic reaction products forming in the aqueous solution;

whereby the sulfur content of the hydrocarbon stream is reduced by removal of the
20 aqueous solution of ionic reaction products.

16. (previously presented) The process according to claim 15, wherein the one or more hypochlorites included in the aqueous reactive extractive agent (a), (c), (d) or (f) is selected from the group consisting of sodium hypochlorite, calcium hypochlorite, and hypochlorous acid.

17. (previously presented) The process according to claim 15, wherein the aqueous reactive extractive agent further comprises a salt or acid form of mixed oxides of chlorine selected from the group consisting of chlorous acid, perchloric acid, chlorine dioxide, and mixtures thereof.

18. (previously presented) The process according to claim 15, wherein the cyanuric acid and its salts of the aqueous reactive extractive agent (b), (c), (e) or (f) is one or more of monochloroisocyanurate, dichloroisocyanurate, or trichloroisocyanurate in combination with one or more of sodium hydroxide, potassium hydroxide, calcium hydroxide or a hypochlorite.

19. (currently amended) A process for the removal of one or more organosulfur compounds from a hydrocarbon stream, the process comprising:

contacting a liquid hydrocarbon stream containing the sulfur compounds with an aqueous reactive extractive agent that includes a hypochlorite, the hydrocarbon stream being contacted
5 under conditions and for a period of time which is sufficient for the reaction between the reactive extractive agent and the one or more organosulfur compounds to form as reaction products water soluble chlorosulfonium ions, said ionic reaction products forming in the aqueous solution,
whereby the sulfur content of the hydrocarbon stream is reduced by removing the
aqueous solution of ionic reaction products.

20. (currently amended) The process according to claim 19, wherein a chloronium ion combines with a sulfur atom of the one or more organosulfur compounds to form a water-soluble ionic sulfur compound.